

What is claimed is:

1. A composition suitable for administration through a tube comprising an effective proportion of components such that upon administration to a mammal in need thereof, the composition is effective to improve absorption of nutrients, increase appetite, promote weight gain, or reduce calorie deficit, wherein the composition comprises less than 3% by weight fat.
2. The composition of claim 1 characterized as having between about 2% to about 2.5 % fat by weight.
3. The composition of claim 1 comprising a feed component comprising ingredients selected from the group consisting of alfalfa, corn meal, oats, and combinations thereof.
4. The composition of claim 1 comprising liquid vitamin.
5. The composition of claim 1 comprising a nutrient component comprising at least one vitamin selected from the group consisting of vitamin A, vitamin B-1, vitamin B-2, vitamin B-3, vitamin B-6, vitamin B-12, vitamin C, vitamin D-3, vitamin E, vitamin K, biotin, choline, folic acid, and combinations thereof.
6. The composition of claim 1 comprising a nutrient component comprising at least one mineral selected from the group consisting of calcium, magnesium, potassium, boron, molybdenum, vanadium and combinations thereof.
7. The composition of claim 1 comprising a nutrient component comprising at least one trace mineral selected from the group consisting of

iron, copper, zinc, manganese, chromium, iodine, selenium, and combinations thereof.

8. The composition of claim 1 comprising a nutrient component comprising at least one antioxidant selected from the group consisting of CoQ10, pantothenic acid, DMG, grape seed extract, bioflavinoid, inositol, PABA, citrus bioflavonoid, pyctogen, and combinations thereof.
9. The composition of claim 1 comprising a nutrient component comprising at least one amino acid selected from the group consisting of alanine, arginine, aspartic acid, cystine, glutamic acid, proline, glycine, histidine, hydroxyproline, isoleucine, leucine, lysine, methionine, phenylalanine, serine, threonine, tryptophan, tyrosine, valine, and combinations thereof.
10. The composition of claim 1 comprising whey powder.
11. The composition of claim 10 wherein the whey powder is smaller than about 45 mesh.
12. The composition of claim 1 comprising a protein component comprising the following constituents: whey powder, and lactase.
13. The composition of claim 12 wherein the constituents of the protein component are present in the following approximate effective proportions: between about 95 and about 100 % by weight of whey powder, and between about 1-5 % by weight of lactase.
14. The composition of claim 12 wherein the protein component further comprising at least one monosaccharide.

15. The composition of claim 14 wherein the monosaccharide is selected from the group consisting of glucose, galactose, fructose, and combinations thereof.
16. The composition of claim 1 comprising a nutrient component comprising ingredients selected from the group consisting of vitamin, mineral, trace mineral, antioxidant, amino acid and combinations thereof.
17. The composition of claim 16 wherein the mineral or trace mineral is in amino acid chelate form.
18. The composition of claim 16 wherein the amino acid is selected from the group consisting of L-glutamine, L-arginine, carnitine, and combinations of these.
19. The composition of claim 1 comprising a functional food component comprising at least one ingredient selected from the group consisting of glucosamine, salt, amino acid, yeast, fermentation extract, and combinations thereof.
20. The composition of claim 19 wherein glucosamine is a chemical selected from the group consisting of glucosamine sulphate, glucosamine sulfate 2KCL, glucosamine sulfate NaCl, glucosamine hydrochloride, N-acetylglucosamine, Poly-Nag. glucosamine, and combinations thereof.
21. The composition of claim 19 wherein the salt is sodium chloride.
22. The composition of claim 19 wherein the fermentation extract further comprises a prebiotic, probiotic, synbiotic, or combinations thereof.

23. The composition of claim 1 comprising the following components:
a protein component,
a nutrient component,
a functional food component, and
a feed component, wherein each component is present in an effective proportion such that, when administered to a mammal in need thereof in an effective amount, the nutraceutical composition is effective to improve absorption of nutrients.
24. The composition of claim 23 in a liquid dosage form.
25. A method for reducing energy deficit in a mammal comprising the step of enterically administering to the mammal an energy promoting effective amount of a composition having less than 3% fat comprising an effective proportion of components.
26. The method of claim 25 wherein the composition comprises between about 2% to about 2.5% fat by weight.
27. The method of claim 25 wherein the composition comprises a nutrient component further comprising at least one ingredient selected from the group consisting of vitamin, mineral, trace mineral, antioxidant, amino acid and combinations thereof.
28. The method of claim 25 wherein the composition comprises a nutrient component further comprising liquid vitamin.
29. The method of claim 25 wherein the composition comprises a nutrient component comprising at least one vitamin selected from the group consisting of vitamin A, vitamin B-1, vitamin B-2, vitamin B-3, vitamin B-6, vitamin B-12,

vitamin C, vitamin D-3, vitamin E, vitamin K, biotin, choline, folic acid, and combinations thereof.

30. The method of claim 25 wherein the composition comprises a nutrient component comprising at least one antioxidant selected from the group consisting of CoQ10, pantothenic acid, DMG, grape seed extract, bioflavinoid, inositol, PABA, citrus bioflavonoid, pyctogen, and combinations thereof.

31. The method of claim 25 wherein the composition comprises a feed component further comprising at least one ingredient selected from the group consisting of alfalfa, oats, and combinations thereof.

32. The method of claim 25 wherein the composition is in an oral liquid dosage form, or a powder form.

33. The method of claim 25 wherein said mammal is a human, horse, dog, cow, pig, goat, or sheep.

34. The method of claim 25 wherein the composition comprises a nutrient component comprising at least one mineral selected from the group consisting of calcium, magnesium, potassium, boron, molybdenum, vanadium and combinations thereof.

35. The method of claim 34 wherein the mineral is in amino acid chelate form.

36. The method of claim 25 wherein the composition comprises a nutrient component comprising at least one trace mineral selected from the group consisting of iron, copper, zinc, manganese, chromium, iodine, selenium, and combinations thereof.

37. The method of claim 36 wherein the mineral is in amino acid chelate form.
38. The method of claim 25 wherein the composition comprises at least one ingredient selected from the group consisting of whey powder, lactase, and combinations thereof.
39. The method of claim 38 wherein the composition comprises whey powder and lactase, wherein the whey powder and lactase are present in the following approximate effective proportions: between about 95% to about 100 % by weight of whey powder, and between about 1% to about 5 % by weight of lactase.
40. The method of claim 38 wherein the whey powder is smaller than about 45 mesh.
41. The method of claim 38 wherein the composition further comprises at least one monosaccharide.
42. The method of claim 41 wherein the monosaccharide is selected from the group consisting of glucose, galactose, fructose, and combinations thereof.
43. The method of claim 25 wherein the composition comprises a nutrient component comprising at least one amino acid selected from the group consisting of alanine, arginine, aspartic acid, cystine, glutamic acid, proline, glycine, histidine, hydroxyproline, isoleucine, leucine, lysine, methionine, phenylalanine, serine, threonine, tryptophan, tyrosine, valine, and combinations thereof.

44. The method of claim 25 wherein the composition comprises a functional food component further comprising at least one ingredient selected from the group consisting of glucosamine, salt, amino acid, yeast, fermentation extract, and combinations thereof.
45. The method of claim 44 wherein the glucosamine is a chemical selected from the group consisting of glucosamine sulphate, glucosamine sulfate 2KCL, glucosamine sulfate NaCl, glucosamine hydrochloride, N-acetylglucosamine, Poly-Nag. glucosamine, and combinations thereof.
46. The method of claim 44 wherein the salt is sodium chloride.
47. The method of claim 44 wherein the amino acid is selected from the group consisting of L-glutamine, L-arginine, carnitine, and combinations of these.
48. The method of claim 44 wherein the fermentation extract comprises at least one ingredient selected from the group consisting of prebiotic, probiotic, synbiotic, and combinations thereof.
49. A method of treating a mammal comprising the step of enterically administering to the mammal a composition suitable for administration through a tube comprising an effective proportion of components such that upon administration to a mammal in need thereof, the composition is effective to improve absorption of nutrients, increase appetite, promote weight gain, or reduce calorie deficit, wherein the composition comprises less than 3% by weight fat.